

Application No.: 10/539,643
Amdt. Dated: April 28, 2006
Reply to Office Action Dated: January 31, 2006

Attorney Docket No. BASF.10039 (PF 54175)
Page 13 of 18

REMARKS

Claims 10-21 are pending in the present application. Claims 10, 11 and 12 have been amended to correct minor errors. The scope of the claims is not believed to have been narrowed by these amendments. No new matter was added.

Reexamination of the application and reconsideration of the rejections and objections are respectfully requested in view of the above amendments and the following remarks, which follow the order set forth in the Office Action.

Rejection under 35 U.S.C. § 112, first paragraph

Claims 10-11 were rejected under 35 U.S.C. § 112, first paragraph, due to the term "alkynyl". This term has been amended in claims 10 and 11 to correct the typographical error, thus, changing the spelling to the more commonly used "alkynyl". These terms are known to be interchangeable. *See, for example, U.S. Patent No. 6,960,580, column 12, lines 27-28.* The term "alkynyl" is defined in the specification at page 11, lines 6-8. In view thereof, Applicants respectfully request that this rejection be withdrawn.

Rejection under 35 U.S.C. § 112, second paragraph

Claims 12, 13, 17 and 18 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants traverse this rejection.

Claims 12 and 17 were rejected due to the language "aromatic groups" in the definition of R¹ and R² in claim 12. This language has been deleted from claim 12. In view thereof, Applicants respectfully request that this rejection be withdrawn.

Claims 13 and 18 were rejected due to the language "C₁₋₆-haloalkyl", "C₁₋₆-haloalkoxy" and "C₁₋₆-haloalkylthio" in claim 13 as there allegedly is insufficient antecedent basis for this language. However, claim 13 is dependent on claim 12 which states that R¹ and R² may be C₁₋₆-alkyl, C₁₋₆-alkoxy or C₁₋₆-alkylthio, among others. Claim 12 also recites that the carbon atoms in the aliphatic groups may be substituted by 1 to 3 groups selected from halogen, among others, thus providing the "halo" portion of the group as recited in claim 13. In view thereof, the recitations in claim 13 are directly supported by claim 12. The definitions of the terms objected to are explained in more detail in the specification. *See, for example, page 9, line 37 – page 10, line 14.* Thus, the terms objected to have specific

Application No.: 10/539,643
Amdt. Dated: April 28, 2006
Reply to Office Action Dated: January 31, 2006

Attorney Docket No. BASF.10039 (PF 54175)
Page 14 of 18

antecedent basis in claim 12, from which claims 13 and 18 depend. Accordingly, Applicants respectfully request that this rejection be withdrawn.

Rejections under 35 U.S.C. § 103

Claims 12-14 and 17-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Howell et al., U.S. Patent No. 3,444,169. Applicants respectfully traverse this rejection.

Independent claim 12 is directed to compounds of formula I-A as defined therein. Independent claim 14 is directed to compounds of formula I-B as defined therein. As described in the specification, the claimed compounds may be useful as pesticides.

Howell et al. is directed to azepines useful as tranquilizers or for their antidepressant properties. As stated in the Office Action, Howell et al. does not disclose the instant compounds in an example.

To establish a *prima facie* case of obviousness in a genus-species chemical composition situation, as in any other 35 U.S.C. 103 case, it is essential that there is some motivation or suggestion to make the claimed invention in light of the prior art teachings. See, e.g., *In re Brouwer*, 77 F.3d 422, 425, 37 USPQ2d 1663, 1666 (Fed. Cir. 1996) ("[T]he mere possibility that one of the esters or the active methylene group-containing compounds... could be modified or replaced such that its use would lead to the specific sulfoalkylated resin recited in claim 8 does not make the process recited in claim 8 obvious 'unless the prior art suggested the desirability of [such a] modification' or replacement.") (quoting *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)); *In re Vaeck*, 947 F.2d 488, 493, 20 USPQ2d 1438, 1442 (Fed. Cir. 1991) ("[A] proper analysis under § 103 requires, *inter alia*, consideration of... whether the prior art would have suggested to those of ordinary skill in the art that they should make the claimed composition or device, or carry out the claimed process."). *MPEP §2144.08 II.A.* According to the Office Action, it would have been obvious to one having ordinary skill in the art to have made the claimed compounds since one would have been motivated to do so since the claimed compounds (as described in the rejection) are structurally similar to those in Howell et al. and would have been expected to also function as tranquilizers. However, no specific motivation for this assertion, as required for a *prima facie* case of obviousness, has been provided.

In establishing a *prima facie* case of obviousness, the scope and content of the art should be determined, the differences between the art and the claims at issue should be determined and the level of ordinary skill in the pertinent art should be determined, as

Application No.: 10/539,643
Amdt. Dated: April 28, 2006
Reply to Office Action Dated: January 31, 2006

Attorney Docket No. BASF.10039 (PF 54175)
Page 15 of 18

required by *Graham v. John Deere*, 383 U.S. 1, 17 (1966). In determining the scope and content of the art, the art should be in the field of applicants' endeavor or be reasonably pertinent to the particular problem with which the inventors were concerned. *MPEP* § 2144.08 II.A.1. The cited art does not meet either of these criteria.

Howell et al. describes compounds for use as tranquilizers or for their antidepressant properties. The compounds of the rejected claims are useful in pesticidal compositions for the control of insects, arachnids or nematodes. One of ordinary skill in the art would not have had any motivation to modify the compounds of Howell et al. in order to obtain the pesticidally active compounds of the rejected claims. Specifically, in order to develop such new insecticidal, acaricidal and nematocidal active agents, a person of ordinary skill in the art would not consider modifying compounds known for their psycho-pharmacological effects on humans.

The Office Action alleges that motivation to make the compounds of the rejected claims stems from an expectation that a structurally similar compound to Howell's compounds would have been expected to also function as a tranquilizer. However, even if the alleged motivation is to make additional compounds for use as tranquilizers, there is still no motivation found in Howell et al. for modifying the compounds shown or making the compounds of the rejected claims. A *prima facie* case of unpatentability requires that the teachings of the prior art suggest the claimed compounds to a person of ordinary skill in the art. *In re Deuel*, 51 F.3d 1552, 1557, 34 USPQ2d 1210 (Fed. Cir. 1995). Some motivation to select the claimed species must be taught by the prior art. 51 F.3d at 1558-1559. No such motivation is found in Howell et al. Indeed, Howell et al. does not point to or direct one of skill in the art to the compounds of the rejected claims even were the compounds of the art for the same purpose as those claimed. In view thereof, a *prima facie* case of obviousness has not been made and Applicants respectfully request that this rejection be withdrawn.

Claims 12, 13, 17 and 18 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmutz et al., U.S. Patent No. 3,539,573. Applicants respectfully traverse this rejection.

Schmutz '573 is directed to dibenzodiazepines and dibenzothiazepines useful as analgesics, antihistaminics, sedative and motility depressing agents, parasympatholytic agents, antiallergics, adrenolytics, neuroplegics, neuroleptics, neuroleptic antidepressants and antiemetics. As stated in the Office Action, Schmutz '573 does not disclose the instant compounds as described in the Office Action in an example.

Application No.: 10/539,643
Amdt. Dated: April 28, 2006
Reply to Office Action Dated: January 31, 2006

Attorney Docket No. BASP.10039 (PF 54175)
Page 16 of 18

As with the rejection over Howell et al., no motivation to provide the compounds as defined in the rejected claims has been provided or is present in Schmutz '573. Each of the arguments and the law presented above is equally applicable to this rejection.

In establishing a *prima facie* case of obviousness, the scope and content of the art should be determined, the differences between the art and the claims at issue should be determined and the level of ordinary skill in the pertinent art should be determined, as required by *Graham v. John Deere*, 383 U.S. 1, 17 (1966). In determining the scope and content of the art, the art should be in the field of applicants' endeavor or be reasonably pertinent to the particular problem with which the inventors were concerned. *MPEP* § 2144.08 II.A.1. The cited art does not meet either of these criteria.

Schmutz '573 describes compounds for use as analgesics, antihistaminics, sedative and motility depressing agents, parasympatholytic agents, antiallergics, adrenolytics, neuroplegics, neuroleptics, neuroleptic antidepressants and antiemetics. The compounds of the rejected claims are useful in pesticidal compositions for the control of insects, arachnids or nematodes. One of ordinary skill in the art would not have had any motivation to modify the compounds of Schmutz '573 in order to obtain the pesticidally active compounds of the rejected claims. Specifically, in order to develop such new insecticidal, acaricidal and nematocidal active agents, a person of ordinary skill in the art would not consider modifying compounds known for their psycho-pharmacological effects on humans.

The Office Action alleges that motivation to make the compounds of the rejected claims stems from an expectation that a structurally similar compound to those in Schmutz '573 would have been expected to also function as antidepressants. However, even if the alleged motivation is to make additional compounds for use as antidepressants, there is still no motivation found in Schmutz '573 for modifying the compounds shown or making the compounds of the rejected claims. A *prima facie* case of unpatentability requires that the teachings of the prior art suggest the claimed compounds to a person of ordinary skill in the art. *In re Deuel*, 51 F.3d 1552, 1557, 34 USPQ2d 1210 (Fed. Cir. 1995). Some motivation to select the claimed species must be taught by the prior art. 51 F.3d at 1558-1559. No such motivation is found in Schmutz '573. Indeed, Schmutz '573 does not point to or direct one of skill in the art to the compounds of the rejected claims even were the compounds of the art for the same purpose as those claimed. In view thereof, a *prima facie* case of obviousness has not been made and Applicants respectfully request that this rejection be withdrawn.

Application No.: 10/539,643
Amdt. Dated: April 28, 2006
Reply to Office Action Dated: January 31, 2006

Attorney Docket No. BASF.10039 (P/P 54175)
Page 17 of 18

Claims 15 and 20 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmutz '573. Applicants respectfully traverse this rejection.

Claim 15 is directed to compounds of formula I-C. Claim 20 is dependent on claim 15.

As discussed above, Schmutz '573 is directed to pharmaceutical compositions, not compounds useful as pesticides as described in the present application. As noted in the Office Action, Schmutz '573 does not disclose the instant compound (as described in the Office Action) in an example.

The arguments presented above are equally applicable here. One of ordinary skill in the art would not have reviewed Schmutz '573 for compounds useful as a pesticidal agent. Moreover, even if Schmutz '573 was reviewed by one of ordinary skill in the pesticide art, there is no motivation in Schmutz '573 to provide compounds as defined in the rejected claims, as is required for a *prima facie* case of obviousness. In view of the lack thereof, Applicants respectfully request that this rejection be withdrawn.

Claims 16 and 21 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Schmutz et al., U.S. Patent No. 3,389,139. Applicants respectfully traverse this rejection.

Claim 16 is directed to compounds of formula I-D. Claim 21 is dependent on claim 16.

Schmutz '139 is directed to 6-basic substituted morphanthridines of a specific formula. These compounds may be useful as neuroplegics, neuroleptics and analgesics and are suitable for the treatment of psychotic conditions. Preferred compounds as taught in Schmutz '139 are those wherein the basic substituent in the 6-position is the 4-methyl-1-piperazinyl residue. Halogen or lower alkyl substituents in the benzene nuclei are preferably in the 3- or 8-positions. *Column 2, lines 2-6*. Thus, the Schmutz '139 patent teaches as preferred compounds with substituents at either the 3 or 8 position, not both. Since the preferred compounds would lead one of ordinary skill in the art away from compounds as claimed, it would not have been obvious from Schmutz '139 to provide those compounds. Any teaching or suggestion in the art of a preferred species or subgenus that is different in structure from the claimed compounds weighs against selecting the claimed species and thus against a determination of obviousness. *See, MPEP § 2144.08 II.A.4.(c)*.

The arguments regarding a *prima facie* case of obviousness and the required motivation to modify the art as discussed above are equally applicable here. First, Schmutz '139 is not in the field of applicants' endeavor as required for obviousness art. In addition,

Application No.: 10/539,643
Amdt. Dated: April 28, 2006
Reply to Office Action Dated: January 31, 2006

Attorney Docket No. BASF.10039 (PF 54175)
Page 18 of 18

there is no motivation in Schmutz '139 to provide the compounds as claimed. A *prima facie* case of unpatentability requires that the teachings of the prior art suggest the claimed compound to a person of ordinary skill in the art. No such suggestion is found in Schmutz '139. Finally, Schmutz '139 teaches preferred compounds that specifically exclude the compounds of the rejected claims. In view thereof, a *prima facie* case of obviousness has not been made and Applicants respectfully request that this rejection be withdrawn.

For the foregoing reasons, claims 10-21 are considered allowable. A Notice to this effect is respectfully requested. If any questions remain, the Examiner is invited to contact the undersigned at the number given below.

Respectfully submitted,

HUTCHISON LAW GROUP PLLC

Date: April 28, 2006

By: Mary B. Grant
Mary B. Grant
Registration No. 32,176

P.O. Box 31686
Raleigh, NC 27612
+1.919.829.9600

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 28, 2006

Jennie Sneed
(Typed Name of Person Signing Certificate)

(Signature of Person Signing Certificate)

Date of Signing: April 28, 2006